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OUTLINE GUIDE FOR JANIS 78 AND 73

Purpose of a JANIS Study: "To make available one publication containing all the necessary detailed information upon which may be based a war plan for military operations in a given area."

CHAPTER RESPONSIBILITY

<u>Chapter</u>	<u>Responsible Agency</u>
I BRIEF	JISPB
II MILITARY GEOGRAPHY	MID
III OCEANOGRAPHY	DNI
IV COASTS AND LANDING BEACHES	DNI
V CLIMATE AND WEATHER	JMC
VI PORT FACILITIES	DNI
VII TRANSPORTATION AND COMMUNICATION	OSS
VIII TOWNS AND VILLAGES	OSS
IX RESOURCES AND TRADE	OSS
X PEOPLE AND GOVERNMENT	OSS
XI HEALTH AND SANITATION	MID (SGO)
XII DEFENSES	MID
XIII NAVAL FACILITIES	DNI
XIV AIR FACILITIES	A-2
XV GAZETTEER AND MAP APPRAISAL	BGN & AMS

JCS review completed

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CHAPTER I

BRIEF

10. Physical Elements.
 - A. Military geography.
 - B. Oceanography.
 - C. Coasts and landing places.
 - D. Climate and weather.
11. Cultural Elements.
 - A. Port Facilities.
 - B. Transportation.
 - C. Communications.
 - D. Cities and towns.
 - E. Resources and trade.
 - F. People and government.
 - G. Health and sanitation.
12. Military Elements.
 - A. Defenses.
 - B. Naval facilities.
 - C. Air facilities.
13. Map Evaluation.

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CHAPTER II

MILITARY GEOGRAPHY

20. Introduction.

Definition of military geography and its significance in this area. General explanation of chapter organization. Reference to brief in Chapter I and to A sections of topics in this chapter for major lineaments. Invite attention to Plans accompanying this chapter. Relationship of this chapter to other chapters.

21. Relief.

- A. General description of relief. Introduction of regional subdivision which is treated in detail in 21B.
- B. Relief description by regions. To include such materials as: Defensive zones, effects on movement, corridors.

22. Drainage and Water Supply.

- A. Description of general drainage pattern and water supply for area as a whole. Indicate major lakes, swamps, streams, and water supply conditions, and point out their relation to military operations. Relation of paddy lands to drainage.

23. Seasonal Change.

- A. Description of general seasonal characteristics.
- B. Description for each relief region, of the military implications of seasonal change on movement, on soil, on drainage, etc.

24. Soil Trafficability.

- A. General explanation of soil trafficability and major factors which affect it in this area. Detailed explanation of soil morphology and of climatic conditions in area not required.
- B. Soil trafficability by regions. Indicate seasonal changes.

25. Vegetation.

- A. General types of vegetation cover, and relation of each to military operations. (Note seasonal changes in color and character).
 - (1) Uncultivated.
 - (2) Cultivated.
- B. Detailed description of uncultivated and cultivated vegetation pattern within each relief region. Include such material as: Cover, concealment, fuel, forage, construction, camouflage, seasonal change, effect on movement and combat.

26. Regional Summary Table. To include a summary of relief, drainage, vegetation, natural water supply and seasonal changes for each of the relief regions. Small islands not treated in detail in text may be included in table.

27. Natural Critical Areas.

- A. Definitions of natural critical area - ground, naval, and air considerations.
- B. List of natural critical areas with brief statement concerning the importance of each to tactical and strategical planning.

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28. Routes to Natural Critical Areas.

- A. General description of route pattern for area as a whole.
- B. Detailed description of major and alternate routes. To include description of relief, potential defensive zones, vegetation, drainage and water supply, soil trafficability, seasonal characteristics.

29. Principal Sources.

Brief.

A full summary of the chapter giving essential facts to be included in Chapter I. The most important maps and illustrations should be repeated in Chapter I, and reference to them should be included in the text material.

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CHAPTER III

OCEANOGRAPHY

30. Introduction.

Relation of Oceanography to operations in this area. General explanation of chapter organization. Reliability of data. Invite attention to any important figures or plans accompanying chapter.

31. Tides and Currents.

A. Tides.

(1) Tidal differences and constants.

- (a) Time differences.
- (b) Height differences.
- (c) Ranges.
- (d) Levels.
- (e) Example.

(2) Sun, moon and tides.

B. Tidal and local currents.

C. General circulation.

32. Sea and Swell.

A. Sea.

- (1) Amounts of sea.
- (2) Direction of seas.
- (3) Relationship between wind velocity and state of sea.

B. Swell.

- (1) Amount of swell.
- (2) Direction of swell.

C. Local sea and swell conditions (optional).

33. Ice conditions.

34. Sea Water Characteristics.

A. Surface and subsurface temperature.

- (1) Seasonal variation of surface temperature.
 - (a) Horizontal distribution.
 - (b) Temperature range.
 - (c) Relationship between sea and air temperatures.
 - (d) Fog.
- (2) Variation of temperature with depth.

B. Surface and subsurface salinity.

- (1) Seasonal variation of surface salinity.
 - (a) Horizontal distribution.
 - (b) Salinity range.
 - (c) Electrical conductivity.
- (2) Variation of salinity with depth.

C. Density.

- (1) Horizontal distribution of surface density.
- (2) Variation of density with depth.
- (3) Use of density gradients by submarines.

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- D. Acoustic conditions.
 - (1) Seasonal variation.
 - (2) Variation with depth.
 - (3) Background noise.
- E. Transparency and color of water.
 - (1) Transparency.
 - (2) Color.
- 35. Bottom Sediments.
 - A. Characteristics of sediment types.
 - B. Horizontal distribution.
- 36. Biological Factors.
 - A. Algae (seaweeds).
 - B. Bioluminescence ("phosphorescence").
- 37. Principal Sources.

Brief.

A full summary of the chapter giving essential facts, to be included in Chapter I. The most important maps and illustrations may be repeated in Chapter I, and reference to them should be included in the text material.

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CHAPTER IV

COASTS AND LANDING BEACHES

40. Introduction.

General explanation of chapter organization. Parts of coast described and basis of selection. References to Plans, Sailing Directions, Port Facilities chapter, and appropriate charts for information on approaches, anchorages, and dangers to navigation. Problems of nomenclature. Reliability of data. Scale of bottom gradients. Use of nautical and statute miles. Note on use of past tense for description of navigational aids.

Break-down by major regions or sectors: summary of coasts; summary of beaches (include summary map or maps on standard JANIS base).

41. Region or sector.

- A. Single island or major division of coast: first segment or minor division (if detailed break-down is warranted).

General statement. (Summary of general characteristics.)

- (1) Coast (concise description of principal characteristics, progressing along coastal segment; give for each part of coast a brief general statement of offshore approach and shore features, followed by more complete description of coastal terrain. Treatment to be far less detailed than in sailing directions.
- (2) Landing places (exclude general coastal description).
 - (a) Single beach (or group of closely related beaches) or Single landing place (or group of closely related landing places other than beaches) (piers, quays, breakwaters, river banks, low shores, etc.)
 - (b) Single beach or single landing place (as in (a) above).

NOTE: When description of beach or landing place (a), (b), (c), etc., is brief, entire description can be run without subheadings. When description is longer or when several closely related beaches or landing places are described as a unit; further subdivision can be made under headings 1, 2, 3, 4, as follows:

(Single beach or group of closely related beaches.)

1. Location and extent (give location of beach, not of coastal segment; length and shape of beach; location with regard to landmarks and developed areas).
2. Nearshore (deal largely with area shoreward of 5-fathom line; bottom gradient and character of bottom; locations and depths of reefs, bars, rocks, shoals, and other dangers; anchorage areas; local conditions of winds, tides, currents, waves and water temperatures).
3. Character of beach (physical consistency; width; gradient; surf and currents; structures such as groins and bulkheads; locations of rivers and streams entering or crossing beach; tidal flats and salt marsh, including consistency of bottom; local use; local weather peculiarities; sources of water -- potable and non-potable; areas suitable for landings).
4. Adjacent terrain and exits. (Topography inland and on flanks of beach; roads, trails, waterways, and cross-country exits; emergency landing places for aircraft; nearest potable water; nearest radio, telephone, and telegraph; telephone, telegraph and power lines; power plants; railroads; habitations).

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(Single landing place or group of closely related landing places other than beaches.) (Refer to Port Facilities Chapter if described there.)

1. Location and extent (give location of landing place, not of coastal segment; location with regard to landmarks and developed areas).
 2. Nearshore (same as for beaches).
 3. Nature of landing place (structure; size and capacity; surf and currents; local use; local weather peculiarities; sources of water -- potable and non-potable).
 4. Adjacent terrain and exits (same as for beaches).
- B. Single island or major division of coast: second segment or minor division (if detailed break-down is warranted).

General statement.

(1), (2), as above.

- C. Single island or major division of coast; third segment, etc.

General statement.

(1), (2), as above.

42. Region or sector.
43. Region or sector.
44. Principal sources.

Brief.

A full summary of this chapter, giving essential facts to be included in Chapter I. The most important maps and illustrations may be repeated in Chapter I, and reference to them should be included in the brief.

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CHAPTER V

CLIMATE AND WEATHER

50. Introduction.

Evaluation of material presented in chapter from standpoint of adequacy of records. General explanation of chapter organization inviting attention to important figures and tables.

51. General Climatic - Synoptic Regime.

- A. Brief description of climate and weather of area.
- B. Major climatic controls.
- C. Synoptic aspects of climate or weather (or general description of seasons).

52. Operational Significance of Climate and Weather.

- A. Ground operations.
(Special attention to freezing of soil mantle and water bodies and time of thaw.)
- B. Air operations.
 - (1) Low level operations.
 - (2) High level operations.
 - (3) Incendiary bombing.
 - (4) Parachute operations.
- C. Naval operations.
(Special emphasis on freezing of water bodies.)
- D. Amphibian operations.
(Special emphasis on freezing of coastal waters to permit landing on ice, etc.)
- E. Chemical warfare.

53. Synoptic Weather Types and Forecast Problems.

54. Climatic Summary.

- A. Precipitation.
- B. Temperature.
- C. Humidity.
- D. Surface wind.
- E. Sea and swell.
- F. Upper air wind.
- G. Cloud.
 - (1) Cloudiness.
 - (2) Ceiling.

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H. Turbulence and thunderstorms.

I. Icing.

J. Visibility, fog, haze, dust, smoke.

55. Principal Sources.

Brief.

A full summary of chapter including essential facts to be included in Chapter I. Graphs and tables similar to those in Climatic Information Guide may be included with brief if desired.

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CHAPTER VI

PORT FACILITIES

60. Introduction.

(Basis of selection between principal and secondary ports. Invite attention to chapter organization, important illustrations, etc.).

61. Principal Ports.

A. Name of port. (Brief description of highlight of port.)

- (1) Harbor (type, customary use, depth, size, shelter).
 - (a) Entrance channel.
 - (b) Anchorage (area, depths, holding ground, number of berths - if possible).
 - (c) Significant hydrographic features (tides, currents, etc.).
 - (d) Local weather (very brief treatment as affecting port operations).

(2) Landing facilities.

- (a) Piers, wharves, and quays (brief summary statement on character, strength, etc., of facilities followed by description by units in tabular form):
 1. Name and location (reference number on map).
 2. Owner and operator.
 3. Type and use.
 4. Construction.
 5. Dimensions and depths alongside (include length of berthing space, width of apron, maximum weight, etc., if available).
 6. Transit sheds.
 7. Mechanical handling facilities (number, type capacity per lift, reach of boom, motive power).
 8. Rail connection.
 9. Capacity for general cargo (tons per day).
 10. Facilities for nighthandling.
 11. Other facilities (specific headings such as: water piped on, oil lines, etc.).
 12. Remarks.
- (b) Other mechanical handling facilities (in tabular form).
- (c) Harbor craft.

(3) Storage facilities.

- (a) Grain elevators (capacity, type, rate of loading, etc.).
- (b) Storage warehouses (location, type, railway sidings and truck platforms, capacity, type and character of receiving and shipping appliances).
- (c) Supply dumps (location, area, transportation connections).

(4) Capacity and clearance.

- (a) Actual annual traffic (recent peak year, type of traffic, breakdown by major commodities).
- (b) Estimated unloading capacity.
- (c) Estimated clearance capacity.
- (d) Facilities for clearing port (railroad, road, water, etc.).

(5) Supplies (brief treatment of availability).

- (a) Water (source, amount, quality).
- (b) Oil and gasoline (bunkering capacity, storage tank capacity, stocks).
- (c) Coal (bunkering capacity, stocks, method and rate of delivery).
- (d) Electricity.
- (e) Other supplies.

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- (6) Repair facilities.
 - (a) Dry docks and marine railways (location, dimensions, capacity).
 - (b) Floating docks (dimensions, capacity).
 - (c) Marine repair plants (facilities, capacity).

62. Secondary Ports.

A. Name of port.

- (1) Harbor (location, type, depth, size, shelter, anchorage, weather, tides, number and size of berths).
 - (2) Landing and storage facilities (summary statement and tabular description by piers or quays, including warehouses, supply dumps, harbor craft).
 - (3) Clearance and capacity.
 - (4) Supplies (water, oil, coal, electricity, and other, specifically important to ships).
 - (5) Repair facilities (drydocks, marine railways, repair plants).
63. Other landings (if necessary; handle by table).
64. Principal Sources.

Brief.

(A full summary of chapter giving essential facts for inclusion in Chapter I.)

CHAPTER VII

TRANSPORTATION AND COMMUNICATIONS

70. Introduction.

Brief summary (shorter than brief for Chapter I). Other general items, such as plan of organization, but only if necessary. General statement of scope of chapter. If necessary, invite attention to important illustrative material.

71. Railroads.

A. General.

Pattern (including operating and dismantled lines); vulnerable points; roadbed and track (ballast, ties, rails, switches and signals, sidings, etc.); brief treatment of methods of operation (right or left hand operation, train order and telegraph, etc.); rolling stock (including locomotives, freight cars, and passenger cars); yards; shops; roundhouses; turntables; bridges; tunnels; traffic and traffic capacity; administration.

B. Individual lines.

Description of route; termini; links; gauge and number of tracks; rails; rolling stock; yards; shops; roundhouses; bridges; tunnels; other vulnerable points; branch lines and spurs; new construction; volume and traffic; capacity.

72. Roads and Trails.

A. General.

Pattern (existing and destroyed); effects of climate and weather; standards of construction and quality; maintenance and maintenance facilities; capacity; administration.

B. Individual roads.

Route description; termini and links; strategic importance and vulnerability; roadbed description; standards and facilities of maintenance; bridges and tunnels; repairs and supplies available.

73. Water Transport.

A. Coastal water transport.

Routes, both regular and irregular; ports-of-call; frequency of sailings; types of vessels used; native crews; effect of weather.

B. Inland water transport.

Rivers, canals, lakes, lagoons; channels; water sources; traffic; capacity; hauling facilities; effects of weather; vulnerability.

C. Landings on ice in winter.

74. Radio.

Administration; equipment (broadcasting and receiving); radiotelegraph; radiotelephone; radio broadcasting; radio stations.

75. Telegraph.

Pattern of network and localization of lines; stations; route equipment; local stocks of construction materials; standard of maintenance; administration; availability of trained personnel; vulnerable features.

76. Telephone.

Pattern of network and localization of lines; trunk lines, rural lines; centrals; route equipment.

77. Submarine cables.

Port of arrival and farther terminus; administration; equipment; facilities for repair and storage of reserve supplies; present condition; vulnerable features.

78. Principal Sources.

Brief.

A full summary of chapter giving essential facts to be included in Chapter I.

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CHAPTER VIII

TOWNS AND VILLAGES

80. General description.
 - A. Pattern of urban settlement.
 - B. Degree of urbanization.
 - C. Functions of cities and towns.
 - D. General characteristics of cities and towns in the area.
 - E. Major cities.
81. Towns and villages of Region A.
 - A. Introduction.
 - B. Towns X. (Population--if no date, estimate)
 - (1) Location and importance from the standpoint of strategic position, trade, political significance, etc.
 - (2) Means of access.
 - (a) Water.
 - (b) Rail.
 - (c) Road.
 - (d) Air.
 - (3) Physical characteristics (site and pattern).
 - (a) Relation to surface features.
 - (b) Shape and dimensions.
 - (c) Degree of compactness and chief open spaces.
 - (d) Street plan.
 - (e) Differentiated sections--commercial, residential, industrial.
 - (4) Factories.
 - (5) Warehouses and storage.
 - (6) Billeting facilities.
 - (a) Military barracks.
 - (b) Schools.
 - (c) Hotels.
 - (7) Health and sanitation facilities.
 - (a) Hospitals and medical personnel.
 - (b) Sewage disposal.
 - (8) Buildings (other).
 - (9) Internal transportation.
 - (a) Subway or rail.
 - (b) Tram.
 - (c) Road (auto, bus, truck).
 - (d) Canal and river ferry.
 - (10) Public utilities.
 - (a) Water.
 - (b) Power.
 - (c) Ice.
 - (d) Gas.
 - (e) Communications.
 1. telephone.
 2. telegraph.
 3. cable.
 4. wireless (radio).
 - (f) Fire fighting.
 - (11) Repair and service facilities.
 - (a) Marine.
 - (b) Railroad, tram.
 - (c) Machine shops and foundries.
 - (d) Garages.
 - C. Town Y (detail as in Town X, if applicable)
 - D. Village (less detailed treatment than town X)
82. Towns of Region B (detail as in Region A).
83. Towns of Region C (detail as in Region A).
84. Glossary.
85. Principal Sources.

Brief.

A full summary of chapter giving essential facts to be included in Chapter I.

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CHAPTER IX

RESOURCES AND TRADE

Note on General Organization: Treat topics for area as a whole, with subdivision for adjacent islands within topics wherever significant.

90. Introduction.

General statement of scope of chapter, invite attention to important illustrations, etc.

91. Food Resources.

- A. Agriculture. (Type and location of farming areas and production including livestock, time of planting and harvesting, and methods of cultivation, annual regional surplus, marketing (local), recent production trends. Same on non-food crops.
- B. Fisheries. (Production, equipment, ports and facilities for edible fish, normal range of operation at sea. Note poisonous fish.)
- C. Processing, refrigeration and storage (location, equipment, capacity, etc.).

92. Water Supply.

- A. Natural availability by islands or groups of islands.
- B. Developed sources (location, type, capacity, quality), adaptability to military water supply equipment, vulnerability.
- C. Distribution, use and storage (for each island).

93. Construction Materials.

(Location, distribution, reserves, ownership, quality, and quantity of wood, stone, clay, sand, gravel, lime, cement stone, etc. Wood is construction wood only. Give locations of forests, sawmills, and data regarding fire hazards)

94. Industrial Raw Materials and Primary Processing.

- A. General. (Characterization of area's position as exporter or net user of industrial raw materials, labor problems in mining and agriculture in general.)
- B. Minerals. (Location, production and trends, stocks and storage facilities, distribution by type and location of use, reserves, mining methods, power-water-fuel requirements, labor availability and quality, vulnerability to sabotage and bombing of; iron and alloy metals; non-ferrous metals; asbestos, sulfur, etc.)
- C. Fuel (coal, firewood only and petroleum). (Sources, quantity, stocks and storage facilities, distribution by type and location of use, ownership, labor availability, fire hazard in forests.)
- D. Agricultural and marine materials. (Sources--amount, quality, producing areas; stocks and storage facilities, possibility of expanding production, distribution by type and location of use.)

95. Manufacturing Plants.

- A. General. (Characterization of industry of area as a whole, relation as consumer or source of material to rest of country; labor problems in manufacturing in general.)
- B. List by products.
- etc. (Location, physical description, production and trends, raw materials used, destination of final product, power-water-fuel requirements, labor quality and availability, nature of government controls and subsidization, vulnerability to sabotage and bombing and reparability, usefulness to military forces.)

96. Electric Power (by regions).

- A. Generation.
(Location, type, vulnerability; capacity in k.w., k.v.a. or h.p., and size; K.W.H. output; current characteristics; transmission, distribution, and area served; operator; source of replacement parts.
- B. Transmission and consumer distribution.
Type of current; types of plugs and appliances; (source of power); transformer and substations; transmission--overhead or underground; power consumed in K.W.H.; loads--maximum recorded and totals connected in k.w.; principal use; available surplus power.

97. Commerce. (very brief)

Flow of trade. (Commodities, origins, and destinations.)

98. Finance. (very brief)

(Currency and coinage (note issue); checks and other financial instruments--brief description; foreign exchange rates and purchasing power of monetary unit; brief description of banking system.

99. Principal Sources.

Brief.

A full summary of the Chapter giving essential facts for inclusion in Chapter I.

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CHAPTER X

PEOPLE AND GOVERNMENT
(In Area only)

100. Introduction.
General statement as to scope of Chapter.
 101. Population (Physical, cultural and social characteristics).
 - A. Russians.
 - B. Natives.
 102. Labor Supply.
(Suitability of inhabitants for labor--energy, skill, reliability, attitude, strength, etc.).
 103. Governmental Organization (Local).
 104. Security and Public Order.
 105. Political Factors.
 106. Principal Sources.
- B rief.
- A full summary of Chapter, giving essential facts for inclusion in Chapter I.

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CHAPTER XI

HEALTH AND SANITATION

- 110. Introduction.
(An evaluation of material presented in Chapter from standpoint of adequacy of medical records.
- 111. Environment.
 - A. Water.
 - B. Waste disposal.
 - C. Animals.
 - (1) Vectors of disease.
 - (2) Dangerous animals.
 - (3) Pests.
 - D. Plants.
 - E. Food.
- 112. Public Health and Medical Facilities.
 - A. Public health organization.
 - B. Hospitals and medical institutions.
 - C. Medical personnel (in broadest sense--dentists, veterinarians, etc.)
 - D. Social service agencies.
- 113. Diseases.
 - A. Diseases of military importance.
 - (1)
 - (2)
 - B. Diseases of potential military importance.
 - (1) Endemic diseases.
 - (2) Disease which may be introduced.
 - C. Diseases of minor military importance.
 - D. Diseases common among civil population.
 - E. Miscellaneous diseases.
- 114. Recommendations (in order of importance).
- 115. Principal Sources.
 - Brief.
 - A full summary of chapter giving essential facts for inclusion in Chapter I.

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CHAPTER XII

DEFENSES

120. Introduction.
Statement of scope of Chapter indicating its organization and content. Invite attention to important illustrations, etc.
121. Organization of Army and Navy defense forces.
 - A. Administration.
 - B. Tactics.
 - C. Normal disposition of forces (material and personnel).
 - D. Labor battalions (non-combat).
122. Supply and Maintenance.
 - A. Depots. (Name, location, capacity and general description of supply and maintenance depots.)
 - B. Supply routes.
 - (1) Overland.
 - (2) Waterways.
123. Fixed Fortifications. (Include map overlay.) (List the defended ports and isolated landing beaches according to name, each a lettered sub-topic, and under each show the available information under 15 sub-paragraphs as follows.)
 - (1) Coast defense batteries.
 - Name of battery.
 - Number of guns (distinguished between guns, howitzers, and mortars).
 - Caliber of guns.
 - Exact model of guns.
 - Exact location of emplacements.
 - Detailed description of emplacements.
 - Camouflage.
 - Protection for gun and crew.
 - Detailed description of guns.
 - Maximum range.
 - Effective range.
 - Type of loading.
 - Rate of fire.
 - Rate of traverse.
 - Types of projectiles available.
 - Color of dye of projectiles assigned to each gun.
 - Number of men in each gun crew.
 - Replacement crews available.
 - Ammunition dump, its exact location, and protection.
 - Method of bringing ammunition to guns.
 - Arc of fire of guns.
 - Landmarks to identify battery from seaward.
 - Location and detailed description of base and stations, OP's, rangefinders, directors, plotting rooms and searchlights.
 - Method of communication with guns.
 - Local defenses.
 - AA guns.
 - Machine guns, trenches, wire entanglements.
 - Personal weapons of crew.
 - Places of the battery in the general organization of coast artillery.
 - Total number of men in the administrative battery.
 - (2) Emplaced field artillery batteries.
 - Same information required as for (1) above, with appropriate modifications.
 - Railway artillery which could be emplaced along a coast is to be described under this heading.

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- (3) Medium AA batteries.
Same information required as for (1) above, with appropriate modifications.
Maximum and effective vertical and horizontal ranges.
- (4) Air warning systems.
Lookout stations and equipment.
Radar installations.
Communication systems.
Reaction to alerts.
- (5) Miscellaneous.
Barrage balloons.
Submarine detector equipment.
Smoke generating apparatus.
Beach patrols and observation posts.

124. Potential Defense Areas (include map overlay).
Repeat sub-topics under 123 as applicable.

125. Bibliography.

Brief.

A full summary of Chapter, giving essential facts, for inclusion only in Chapter I.

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CHAPTER XIII

NAVAL FACILITIES

130. Introduction.

Statement of scope of chapter indicating its organization and content. Invite attention to important illustrations, maps, etc.

131. Organization.

A. Administration.

B. Normal disposition of forces (ships and personnel within the area).

132. Supply and Maintenance.

A. Depots (name, location, capacity and general description of supply and maintenance depots).

B. Repair facilities (general summary; specific installations to be listed under topic 133).

133. Naval Bases and Stations (include map overlay locating these). List the bases and stations by name as lettered subtopics, and under each give the available information suggested below in consecutively numbered paragraphs.

A. Name of base or station (include fueling stations).

- (1) General description (if possible use photographs, sketches, maps, etc., to show location and extent).
- (2) Harbor and entrance channel (type of harbor and nature of port, depths, size, shelter, nature of shores, etc. Introduce this only when it is not described in the chapter on Port Facilities. Otherwise insert a reference to that chapter).
- (3) Anchorages used by naval vessels (area, depths, holding ground, location with reference to naval installations).
- (4) Naval loading and unloading facilities (piers, quays, and wharves used for transshipment of naval stores, munitions; personnel, etc. Locate and describe type of construction, dimensions; etc., if information is available).
- (5) Warehouses, storage facilities, supply dumps.
 - (a) Warehouses (type, dimensions or capacity, location with reference to loading and unloading facilities, etc., if information is available).
 - (b) Supply dumps (location, type of material stored, extent, proximity to transportation facilities, etc.).
- (6) Supplies.
 - (a) Water (source, amount, quality, servicing).
 - (b) Fuel (bunkering and storage tank capacity, stocks, servicing, any other pertinent information).
 - (c) Electricity (sources, location of plants, switching stations, generating capacity, etc.).
- (7) Facilities for clearing port. (Brief account of rail and inland waterway facilities serving the naval base or station).
- (8) Shipyards and repair facilities.
 - (a) (Under lettered sub-paragraphs describe the various components of the shipyard. If more than one shipyard is located at a base, discuss it under the next numbered paragraph).
 - (b) Marine railways (location, capacity).
 - (c) Drydocks (location, dimensions, capacity).
 - (d) Cranes, fixed and floating. (Number, types, capacity reach, and motive power).
 - (e) Naval repair plants and shops (facilities, capacity).

9. Naval factories.
 - (a) (Under lettered sub-paragraphs narrate available information on individual arsenals, foundrys, powder factories, aircraft assembly plants, and similar installations. Introduce sketches, tables, or any other device to present the information clearly and succinctly.)
 10. Other naval establishments.
 - (a) Radio stations.
 - (b) Hospitals.
 - (c) Schools, training facilities.
 - (d) Any other establishment of naval importance on which information is available.
 11. Personnel. (Any available information on strength, characteristics, organization, duties, etc., of enlisted and civilian personnel attached to the base. Include any information available on labor supply.)
 12. Vulnerability and camouflage. (Any information on the susceptibility of the base or station to any particular kind of attack, air raid defenses, fire fighting organization and equipment, shelters, and related matters. Extent of use of camouflage and any information on specific camouflaged installations.)
 134. Potential naval bases and stations (locate on map overlay. Brief, general description of ports, harbors, or other areas which are suspected of being or which might be developed into naval bases and stations. Avoid duplicating any detailed information which may be included in chapter on Port Facilities.)
 135. Principal sources of information.
 136. Brief to be included in Chapter I. (Concise summary of entire chapter containing all the most essential facts.)
- NOTE: In general this outline should be considered flexible and to be modified in accordance with the nature of the area and the information available. In preparing manuscripts, reference should be made to the printing style of JANIS studies in which headings and paragraph arrangement fit into a definite pattern which leads to greater efficiency in production.

OUTLINE GUIDE FOR JANIS

CHAPTER XIV

AIR FACILITIES

140. Introduction.

Statement of scope of chapter indicating its organization and content. Invite attention to important illustrations, etc.

141. Organization.

- A. Administrative (if available).
- B. Tactical (if available).
- C. Normal disposition of forces, aircraft and personnel (if available).
- D. Labor battalions, non-combatant, (if available).

142. Supply and Maintenance.

- A. Depots (name, location, capacity and general description of supply and maintenance depots).
- B. Supply routes.

143. Airfields (detailed description, by sketches, photographs and tabulated data as applicable).

- A. Name of airfield.
 - (1) General description (local position, coordinates, elevation, runway directions and dimensions, estimated operational capacity, number of revetments, dispersal facilities).
 - (2) Facilities.
 - a. Fuel storage and servicing.
 - b. Night operation.
 - c. Repair and storage facilities for aircraft, engines and instruments.
 - (3) Field condition.
 - a. Runways, material used in construction, condition, slope, hazards.
 - b. Field.
 - (1) General condition, including drainage, type of soil, condition in rainy season, possibility of enlargement.
 - (4) Permanent defenses (include ammunition dumps).
- B. Name of airfield (1 to 3 as in 143 A).

144. Landing Grounds (detailed description, by sketches, photographs and tabulated data as applicable).

- A. Name of landing ground.
 - (1) General description. Local position, coordinates, elevation, dimensions, estimated operational capacity, dispersal facilities.
 - (2) Facilities - whatever available.
 - (3) Field condition - surface, slope, drainage, hazards, possibility of enlargement.
 - (4) Defenses (include ammunition dump).

145. Possible landing sites - consider terrain, nearness to transportation and communication facilities, location, availability of construction materials.

146. Seaplane stations and alighting areas.

A. Name of station.

- (1) General description (sketches, photographs, tabulated data, showing location, altitude, magnetic variation and annual change, local position, landmarks, obstructions and dimensions).
- (2) Sea conditions and anchorage (wind, shelter, swell, chop and currents in various seasons, depth of water, bottom holding ground, mooring buoys, aids to navigation and dispersal facilities).
- (3) Slipways (aprons, beaches, jetties, quays, cranes, boats and vehicles).
- (4) Facilities (fuel storage and servicing, water, hangars and workshops, power, general and ammunition storage, accommodation, possibility of enlargement).
- (5) Permanent defense system (including ammunition dumps).

147. Emergency Seaplane Alighting Areas and Potential Seaplane Stations (Consider terrain, sea conditions, nearness to transportation and communication facilities, location, availability of construction materials).

148. Bibliography.

Brief

(A full summary of chapter giving essential facts for inclusion in Chapter I).